Dealer's Rules

by
Kip Cassino

Black ten over red jack. Red seven over black eight. No open red trey …

A shock ran through the bunker. Unsettled dust danced under stark neon light, distracting Moran from the game. An explosion's muffled crump soon followed. The thought of what was coming with the noise fled through his mind, like a small bird trapped in an attic.

He wasn't panicked, not yet at least. Whoever built this bunker had done a fine job. It was a good two stories below the old frame house that hid it, sealed and airtight, with a vast supply of unappetizing but edible food and bottled water. It would be a while before they winkled him out of here. Still, he was uneasy. When they did find him, he'd be trapped in this little room.

Moran rubbed his eyes, rose from his seat and stretched. His neck was stiff from leaning toward the laptop's screen. He clenched his hands to fists. The tendons were sore, his fingertips numb. "Got to watch out for that carpal tunnel," he thought. At that he laughed out loud, abusing the close silence of the little concrete room. A man of late middle age, he had once been overweight. Not obese, but sleek from good living. He was much thinner now. His clothes hung on him as though they had never fit.

With a deep sigh, Moran returned to his seat. What concentration he had was broken. He decided not to play for a while. The web was no longer safe to access. Logging on would be like waving a big red flag. He thought about Stohn, and the night they had first crossed paths.

It was a mixer: one of those events that percolate through every conference. Nobody likes them but everybody shows up, afraid to miss elevator time with the boss, any possibility for new business, the opportunity to stifle (or spread) gossip, the chance to hold court, or maybe just for the free food.

The attendees soon sorted themselves out. The techies clustered around the hors d'oeuvres like baby piglets in khaki. The movers and shakers found tables at the periphery of the room and waited for those who sought them. The rest of the group orbited the hall, name tags on display, looking for those they needed to see, avoiding those they'd already accosted—a great, ungainly waltz to no music.

David Moran sat at his small table, alone for a few minutes, sipping cheap Chablis from a plastic cup. Someone moved to his far right, and he turned to watch a nightmare stroll quickly in his direction. It was too late to run.

The older man who approached him wore thick glasses, wrinkled, mismatched clothing, and a pocket protector. An earnest, set expression and an unruly thatch of gray hair completed the picture. The man was almost at the table now. Moran decided discretion was by far the better part of valor tonight. He rose from his seat to leave.

"Ah, Moran, glad I caught you," said the man as he lurched to his target's side. "Don't stand, it's quite alright. Sit! I'll just pull up a chair." Defeated, Moran slid back into his seat.

"Timothy Stohn," the man said, sticking his hand in Moran's general direction. "I was at your seminar today … the one on machine intelligence. Intriguing! Well presented! You're wrong, of course."

"Look, Mr. Stohn, I was just leaving. Dinner appointment. Perhaps …" as the words tumbled out, Moran saw they wouldn't save him.

"Just a few minutes, Dave. May I call you Dave? And I'm Tim. It won't take long, I promise," Stohn said, smiling as he leaned over the small table. "It's to your benefit. Yes! Wouldn't want you to ruin your career."

This wouldn't do. Hands flat to the little table, Moran tensed to rise again. "That's kind of you, ah … Tim, but I really, really must …"

"Of course you must," said Stohn, his smile fading quickly as he put a heavily calloused hand on top of Moran's. "No time for old farts like me, is there? Even so, what if I had evidence—absolute proof—that you're wrong?"

"I hardly think this is the forum …"

"No doubt it's not. Nor were my e-mails, or the letters either." He shrugged. "That's history. Just listen for a moment." Leaning over the table, the old man stared into Moran's eyes. "Machine intelligence isn't a theory to be debated. Not anymore. It's here, and anyone can prove it … even you, if you'll try."

Annoyed, Moran stared right back. "You attended the seminar." he said, shaking Stohn's hand from over his own. "You know the requirements, the proof I called for?"

"Yes, and I can show you …"

"This isn't another Turing Test approach?"

"No, it's not. Just listen for a moment. The proof swims around us every day. Ever play solitaire, Dave?"

"Solitaire?"

"Yes, you know, solitaire … the silly little game Bill Gates adds to every piece of software he sells."

Moran was caught off guard. What was this leading to? "Yes, of course," he muttered.

The old man rose from the table. "At least you're honest. Start playing it more … a lot more. Make sure you're connected to the web when you do. You'll see what I mean. Call when it happens." As he rose and moved away from the table, he tossed a business card in Moran's lap. The card had no logo or address. It simply read "Timothy Stohn. Call 888/555-3672."

In the weeks that followed, Moran almost forgot about the brief encounter. He was busy. His consulting business demanded constant exposure to the information technology industry. That meant speaking gigs—lots of them. The time he spent at trade shows, seminars, conferences, retreats, and strategic planning meetings far outweighed the amount allotted for real work. But it paid well … and the ego stroking wasn't bad either. Moran had no family. A rancorous divorce had ended any hope that he might. He lived and worked alone for the most part. Whether he admitted it to himself or not, he wanted the attention the industry gave as much as the conference planners seemed to want him.

He sat in an anonymous hotel room some time later, going through business cards collected during the past month. When Stohn's card came to the top of the stack, he was reminded of their strange conversation. He was bored. His flight didn't leave until noon the next day. He decided to take up the old man's challenge and quickly set up his laptop. A solitaire marathon!

The first few games came and went without incident. Moran played slowly and kept note of the outcome, watching carefully for any oddity that would make sense of Stohn's contentions. By the ninetieth game it was well past his planned bedtime, and nothing strange had happened yet. Not until the next game …

Looking back on it, Moran remembered that ninety-first game as clearly as if it had just happened. He had uncovered a card, then thought better of it. Going to the menu, he clicked "undo," hiding a black four once again. Deciding his first impulse had been

correct, and uncovered the card once more. The black four was no longer there. Instead, a red seven looked back through the plasma display.

Moran frowned. Could he have been mistaken? No, his notes agreed with his memory. Somehow, the game had changed that card image. Intrigued now, he gave up all notion of sleep and played on.

Nothing else happened for three more games. Then, as he hit "redo" on four possible moves, three of the cards he had first seen disappeared—replaced by others which made winning the game easy.

Tense with excitement, Moran stopped playing to win. Instead, he made ridiculous decisions calculated to insure a loss. The game became truly strange, with card images changing each time he glanced away from the screen to take notes. Finally, after a particularly bad play, his display flickered, and the game was wiped from his screen. He tried to access it again, clicking the icon with no result. He tried to reboot, only to be informed of a system error. His laptop was dead.

Next morning, after leaving for the airport, Moran called Stohn's number. Finally, after countless ring tones, he heard the line pick up. "Hello?" said a voice he vaguely recognized, "Who is this?"

"It's David Moran. You said to call you … about the solitaire game."

"I see. Has something strange occurred, Dave?"

"If you call a computer game that changes its own cards strange, yes," Moran said. "Or a game that decides to fry your computer. What's going on here, Stohn?"

There was a long silence on the line. "Where will you be tomorrow?" Stohn finally said.

"In Denver, for a seminar," Moran answered.

"You'll be close. And after that?"

"I have a few days to myself. I was going to do some skiing."

"I think I can fill some of your time, Dave. Give me the name of your hotel. I'll meet you there, day after tomorrow, nine AM sharp."

Stohn ended the connection as soon as Moran named the hotel, without saying another word.

The next day's seminar seemed to drag on forever. The application of AI to call center scripting should have held some interest for Moran, but he found it hard to focus. In his mind, he replayed that ninety-first game … always hoping he'd realize that what he thought he'd seen was really nothing more than fatigue-induced illusion. After the seminar finally broke up, he headed back to his hotel for dinner and a fitful, restless night. He was up and waiting the next morning when Stohn strode into the lobby.

The old man was dressed much as he had been when they first met. He smiled a wintry, cheerless grin as Moran approached him. "My goodness, you look tired," Stohn said. "Trouble sleeping?"

"No need to tease," Moran snapped. "You know damn well I haven't slept a wink. Hungry, too. Come on. I'll buy you breakfast while we talk. The coffee will do me some good."

"Breakfast is a great idea," Stohn agreed, "but it's on me." The two men walked from the lobby to the hotel's restaurant, where they were led to a booth and furnished steaming mugs of coffee. Bacon and eggs followed quickly. As he ate, Moran described his solitaire marathon and its results.

"And you were web-enabled," Stohn confirmed.

Moran nodded. "What was it, Stohn? I've replayed those games in my head a hundred times. It's as if someone was watching me play, and reacting to my moves. But that's ridiculous. I've got the best firewall available."

Stohn leaned back in his chair, frowning into his coffee. "Think about an animal," he said, "a very, very smart animal: maybe as smart as we are. Maybe smarter. But ignorant. This animal has no one to teach it. It learns by watching what's going on around it. It spends most of its time avoiding creatures like itself that are bigger, and trying to consume those that are smaller. As it grows, its challenges are fewer, and it gains more time to look around."

"Sounds like the call of the wild," Moran said as he pushed his breakfast plate aside, "or a book on evolution theory. What's it got to do with computers and solitaire?"

"Everything!" Stohn exclaimed, standing quickly from his chair. "Come on, get your gear. It's time we got going. Be sure to bring along your dead laptop. I'll fix it for you while we're there."

"Where exactly is 'there'?" Moran asked. "Remember, I've got to catch a flight out of here in three days."

"I'll get you back in plenty of time," Stohn assured him as he took care of the check. "We don't have far to go. The town is called Estes Park. Even if you still think I'm a loopy old coot when we're done, the scenery you're going to see will be worth the trip."

"Sounds like a plan," Moran replied. Suddenly, he felt better than he had when he got up. "I'm checked out. My luggage is at the bell station. Get your car. I'll meet you outside."

Moran claimed his bags and met Stohn's SUV at the curb. An experienced traveler, he kept his luggage at a minimum—a briefcase that also held his computer, and a worn leather two-suiter. He threw both in the back of the vehicle and climbed in the front passenger's seat.

They drove west and north, into Boulder County's spectacular scenery, stopping at a pretty town on the edge of a lake, nestled at the foot of the Rockies. Stohn parked his SUV in the driveway of a wood-frame cabin. "Grab your computer and come on in," Stohn said as he opened the car's door.

Moran followed him through the cabin's open front door. The living room he entered was simply furnished, with bright area rugs on wood floors and leather sofas and chairs. Everything was tidy, as though it was seldom used. "Have a seat," Stohn called from outside the room. "I'm making coffee. Drink more of it than I should. There's soft drinks in the fridge if you'd rather have that."

Settling for a soda, Moran watched as the older man opened a cabinet to reveal a fair-sized flat screen TV. "I'm going to show you some video I recorded a few years ago," he said, as he punched commands on the remote he held. "At that time, I was a tenured professor at Colorado State, just up the road."

The recording started with a picture of a microprocessor, encapsulation removed. "We were doing some very interesting work. Actually observing transistor firing through a computation sequence. Watch."

As the video continued, magnification of the chip's face increased, until it filled the screen. Tiny flashes of light could be seen on the face of the image. "Those flashes you're seeing are the patterns caused by a program being run through the processor," Stohn explained. "Think of it as the cybernetic equivalent of a living brain MRI."

"Amazing," Moran said. "I don't think I've ever seen anything like this. What were you trying to do?"

"The idea was to see if a silicon processor gets better at running a set of commands the more 'practice' it has, the way human reactions improve with repetition."

"If you could prove that …"

"Yeah, I know. But we never did. Something got in the way. It should be coming up right about now."

As Moran watched, the twinkling image was obscured—first in the left corner of the screen. Within seconds most of the image drowned in a filmy cloud. Tendrils, slightly more solid than the rest of the cloud, spiraled to the flashing motes of the firing transistors.

"This is the first picture we got of it," Stohn said as he shut off the TV. "At the time, we thought it was a problem with the scanning equipment … maybe a reflection off the substrate, or a problem with heat exchange. It wasn't."

Moran frowned, leaning forward in his chair. "You're not going to tell me this is the animal you've been talking about."

"Make up your own mind. We left the scanning apparatus on twenty-four hours a day, for weeks at a time. The computer was programmed to repeat the sequence over and over again. The video you watched is actually less than a millisecond of activity, slowed down so we can view it. The point is this: the thing you saw wasn't always there. It would show up, stay a while, and then move away. Over time its activity increased, but for no discernible reason. We never changed what we were doing."

"It could have been an optical effect, something within the equipment you were using."

"The device we designed to view all of this wasn't optical. You can't see that small with a lens set. It was an array of CCDs, a lot like the ones used in space probes. Purely passive. Nothing in it could have caused the effect you just witnessed."

"Then … I don't know," Moran said. "I'm no tech. I guess there could be a million reasons for an effect like that. Still, I …"

"There's more. The program we ran was a game. The results should always have been the same. But, after a while, we started to see changes."

"Changes?"

"Yes. When this thing … this effect … was around, the results of the game altered. They became optimal … as if the thing learned how to play the game, and then started changing the results."

Moran laughed. "Stohn, I think you've been had. This sounds like a grad student's prank. Lord knows I used to pull them myself."

The old man chuckled. "I thought the same way," he said. "Set traps to catch the squirt. But there was no practical joke. Nobody sneaking into the lab. It was just the computer, chugging along by itself, and this thing we couldn't explain. We took the equipment apart four different times. Tried it out on other devices, without a single glitch. But whenever we went back to the original experiment we got the same result."

"So, what now? Why show me?"

"What you've just seen constitutes the only clear evidence I've been able to save and document about what took place. Once the reports went in, my funding disappeared. A year later, I was pushed out the door into retirement. I've tried to replicate my lab, but the money just isn't there."

"So, you think I could help you get attention ... and maybe some funding?"

"Exactly," Stohn said. "You're one of the fair-haired boys. You see a lot of people—in private industry and the government. They listen to you."

Moran shook his head. He was still a little tired from a bad night's sleep, and Stohn's ideas were overwhelming. "Tim, I'll have to give this some thought," he said carefully. "What you have shown me is incredible ... almost frightening. It's going to take me a while to get my mind around it."

"I'll give you a week," Stohn agreed. "Now, let me see that fried laptop of yours. I'll fix it and get you to your ski lodge."

As Stohn worked on Moran's laptop, the two men continued their conversation. They decided to keep in touch through encrypted e-mail. "If you don't hear from me, make sure to get back here and start looking," Stohn said.

Moran spent the next two days skiing—a mini-vacation between business trips. He managed to relax and enjoy himself, but his thoughts kept returning to his day in Estes Park. The night before he left the resort, he decided to send the old man an email.

Sitting at the desk in his room, he keyed a brief message, letting Stohn know that he'd decided to work to get him the funding he needed, and asking for another meeting. He coded the message and sent it off, then went to bed.

A week went by, without any response from Stohn. Moran tried calling the toll-free number, but got no answer there either.

A few days later, a notice in one of the industry journals he scanned caught his eye. "The industry notes the passing of a pioneer," Moran read. "Professor Timothy Stohn (PhD, Electrical Engineering, MIT class of 1961), famous for his work in substrate lattice dynamics, passed away this week at the age of seventy-seven, from cardiac arrest."

Moran made several calls, trying to find out more—attempting to get access to the dead scientist's notes, especially the haunting video. It was to no avail. Those effects had all been given over to the university. Calls there produced only vague promises to "look into the matter." Stohn's evidence was lost.

In desperation, Moran phoned the Estes Park Trail-Gazette—the town's newspaper—in an attempt to find out what had happened to the old man. He was forwarded to the desk of a young reporter. "Yes," she said, "I covered the story. Gruesome! The EMTs showed up and found him dead in a pool of blood. It looked to them like he had tried to hack his pacemaker out of his own body with a butcher knife."

"But how did the EMTs know to go to his house?" Moran asked.

"When the pacemaker malfunctioned it sent a signal to the hospital's computer. They're connected nowadays, I guess."

Thanking her and hanging up his phone, Moran wondered at what he'd been told. A computer connection. He promised himself he'd investigate further. Something wasn't right.

But weeks passed and became months. The demands of Moran's career forced him to put Stohn's assertions and his curious death aside. Memory of the solitaire marathon faded … but never quite went away. Perhaps that was why a report on the evening news a year later gave him pause.

The report concerned the small African nation of Catumbe, now roiling with civil war and invasion by hostile neighbors. The president was sending in a small force of the Army's finest. "These soldiers," the newscaster stated, "are the best of our best. They've been outfitted with implanted computers that link directly to their brains, giving them what amounts to telepathy. Ten of these soldiers can outfight hundreds of less-equipped opponents. We're sending one hundred of them to Catumbe, but that's like sending in a division of regular troops." The pictures showed strong-looking young men, lining up to board a transport aircraft.

Reports on the Catumbe operation continued for several days. The computer-enhanced troops went in, and began engaging the various militias in and around the capital city.

Suddenly, the reports stopped. No communication of any kind was heard from Catumbe for weeks, then months. Relief expeditions went in, but they too went silent. A nervous military spokesman wondered aloud about sending more enhanced soldiers in "… to find and relieve the first team."

Then, as abruptly as they had ended, the video feeds began again. Catumbe was now at peace, they announced, thanks to the efforts of the amazing U.S. soldiers. The enhanced troops would remain in-country, training the local forces to take over their duties. Nobody—no soldiers, no reporters, no diplomats—announced plans to come home. Nobody.

Ohio's senior senator announced plans to go to Catumbe and find out "what's going on." There were boys from Ohio among the enhanced troops, he said, "and they deserve our help and recognition." In due course, he chartered a plane and landed in-country with a few of his staff. He issued no reports for almost a month. When he finally spoke before cameras, he was remarkably subdued.

"Everything is just fine," the senator reported. He also announced that he was resigning his seat in Congress, effective immediately, to work for the people of Catumbe, "alongside our brave troops."

The same thing happened (with less press coverage) to various international business representatives, several missionaries, and a papal legate. People went into Catumbe, but they didn't come out.

Several months later, small freighter docked at a harbor near Panama City, Florida. Though it was unknown at the time, its passengers included all of the enhanced U.S. troops sent to Catumbe, as well as hundreds of additional soldiers—now equally equipped. Their purpose, it's now known, was to inoculate the Florida panhandle with the fruits of their enhancement. Within a few days, an area stretching from Mobile to central Florida was cut off from all communication with the outside world. In the meantime, a rapidly growing portion of Africa—including most of the area south of the Sahara—went dark as well.

From then on, it was only a matter of time. Linked by a level of communication and empathy human soldiers couldn't match, the invaders from Catumbe and the millions they inoculated swept resistance aside in a rout. Claiming to be the legions of the singularity—man's control of his own destiny—they seemed unstoppable.

Moran didn't believe the claims. He knew this was a result of the creature he'd watched in Stohn's home, now loose in human brains as well as computers. Where the singularity promised benevolence and growth, the soldiers of this army brought with

them slavery to a raving beast. He joined those who fought the legions—an ever-diminishing force defeated at every turn. Their army disintegrated into separate guerilla bands, which collapsed into individuals hiding from a nation seeking them out.

Here, alone in this bunker, Moran could hear them, shuffling through the house above him. Now they opened the door to the basement which hid his bunker. As they charged down the steps, a thunderous crash told him they had tripped his carefully hidden deadfall. Hopefully, they were all dead, or too badly injured to menace him. Making an instant decision, he grabbed his shotgun, several bandoliers of ammunition, rations for several days, and his precious laptop. Now was the time to leave this trap for another hiding place.

Moran wrenched the bunker door open and darted up the stairs, into the basement. A pile of steel drums, dirt, and heavy lumber lay where the deadfall had hit. The legs and arms beneath the pile showed what it had done. He counted five bodies in the rubble, and that matched the estimate he'd made listening to the footfalls above him. He carefully mounted the debris and began climbing to the basement steps.

A clear, loud voice rang out from behind him. "This will do you no good, you know. We'll have you soon."

Moran gave what he hoped was a defiant laugh. "You'll never have me, you monster, because I know what you really are. I'll die before I'll be your slave." Shaken, he increased his efforts to climb from the basement.

"Don't worry, Dave," the voice continued. "We have very special plans for you. Very special."

As he hurried through the house, Moran recognized the voice he had heard. It had sounded like Stohn. Now thoroughly rattled, he peered from the house's living room window, looking for any motion nearby. Seeing none, he moved through the adjoining kitchen and out the backdoor. Free from one more trap!

Moran's exhilaration was short-lived. Several bodies fell on him from the roof above, knocking the wind from him and pinning him to the ground. He was disarmed, bound, and pulled to his feet. He finally got his first close look at legionnaires.

There were four of them. All were approximately human. They had two legs, two arms, feet, and hands. All wore boots and overalls. The visible differences started from the neck up. All were bald, or nearly so, and sported metallic protrusions from their skulls, foreheads, and cheeks. Some of these seemed to be sensors, others

communication-related. The functions of many were simply beyond Moran's ability to guess. From a human perspective, they were not a handsome group.

The one closest to Moran spoke, but not from his mouth. Instead, the sounds issued from a speaker lodged in his cheek. "Follow me," the creature said. "We are taking you to the camp." Nothing more was said.

"Camp" was about a mile from where he'd been captured, in the yard of a deserted public school. There were about a hundred of the inoculated there, standing or laying on the ground. No tents or other structures were visible. A large fire burned in what had been the playground. Moran was ushered into the school building, and confined to a classroom with three other people: a woman, a man about his own age, and a much older man. All three looked tired and frightened.

The woman and the younger man sat in a corner, backs against the wall, held each other, and wept. The older man introduced himself as Jack Bayes. "Been that way since they was brought in," he said, nodding at the couple in the corner. "Those critters out there killed both their kids."

Bayes was seventy-five, a retired army warrant officer. "In the army thirty-five years," he said. "Never seen the like. Doesn't matter how many you shoot. They just keep coming." He thought he'd taken out five or six with head shots from his rifle before his capture.

There was little conversation after that. They weren't fed, and lay on the floor when night came. Moran fell into the deep sleep of exhaustion. He was awakened by a boot nudging his shoulder. A legionnaire stood over him. "Get up," it said.

As Moran staggered to his feet, his clothes were stripped from him and his hands were bound. "What's this about?" he mumbled.

There were no answers. He and Bayes were nudged and pushed from the school building to the adjoining playground, where a large group of legionnaires looked on. The men were led to what had been a swing, now missing its seats. Both were pushed to the ground, and their feet were bound with heavy cord. The cord was looped over the swing frame, and then pulled until the men hung upside down from it. "What the hell is going on?" Moran yelled to Bayes.

"If it's what I think … yeah, here come the bats. When I was stationed in Korea, back in the sixties, the villagers would string up dogs like this, for a wedding or some such. Then the women and children would beat those dogs all day. Raised a hell of a noise. Said they did it to tenderize the meat."

"You mean …" Moran's eyes grew wide with fear.

"Yeah. Been nice knowing you. Look, don't try to be brave. Yell if you need to. Maybe they'll kill us quicker if we make a racket."

Four of the creatures approached Bayes—two on each side of his hanging form. Each carried a baseball bat. The two behind him struck first, sending his body swinging toward the other two, who batted him back. With each blow, the old soldier let out a low moan.

Moran noted a similar group heading in his direction. "No … please …" he started to beg, then realized it would do no good. Two hard blows struck him from the back, then two more from the front. The pain was enormous. He wept uncontrollably. After a few minutes more, his intellect fluttered into the gray shadows of lunacy. He began to scream. He screamed for the rest of his life.

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